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Let's first look at the free-fall equations if we ignore the collision with the ground. Taking upward as positive, we have

$$y(t) = y_0 + v_0 t + \tfrac{1}{2} a t^2,$$

$$v(t) = v_0 + at,$$

with

- Initial height $y_0 = 50\,\text{m}$ (the top of the building),
- Initial velocity $v_0 = 20\,\text{m/s}$ upward, and
- Acceleration $a = -9.8\,\text{m/s}^2$ (gravity).

Plugging in $t = 7\,\text{s}$ we would get

$$v(7) = 20 - 9.8 \times 7 \approx 20 - 68.6 = -48.6\,\text{m/s},$$

$$y(7) = 50 + 20 \times 7 - \tfrac{1}{2} \times 9.8 \times 7^2 = 50 + 140 - 240.1 \approx -50.1\,\text{m}.$$

That is, mathematically the stone would be 50.1 meters "below" the starting height and moving downward at 48.6 m/s.

However, note that the stone "finally hits the ground." To find the time it reaches the ground, set $y(t) = 0$:

$$50 + 20t - 4.9t^2 = 0.$$

Solving this quadratic (using the positive root) gives

$$t \approx 5.83\,\text{s}.$$

This means that the stone strikes the ground at about 5.83 seconds. Since the problem tells us the stone "finally hits the ground," for $t \geq 5.83\,\text{s}$ the stone is no longer in free flight—it is at rest (assuming an inelastic collision with no bounce).

Thus, at $t = 7\,\text{s}$:

- The stone has been on the ground for about $7 - 5.83 \approx 1.17\,\text{s}$,
- Its velocity is $0\,\text{m/s}$,
- And its position remains at ground level.

In summary, although the free-flight equations would yield $v(7) \approx -48.6\,\text{m/s}$ and $y(7) \approx -50.1\,\text{m}$ (if we extended the motion past ground impact), the physical reality is that the stone hit the ground at about 5.83 seconds. Therefore, at 7 seconds the stone is at rest on the ground with zero velocity.

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